

**To:** Wall, Dan[wall.dan@epa.gov]  
**From:** Skipper, Sherry  
**Sent:** Tue 8/11/2015 11:39:28 PM  
**Subject:** from Steve Klaine; chronic metal mixture toxicity data for fatheads and daphnia

FYI. He also sent me an e-mail letting me know that Dave Mount (EPA) has corresponding acute metal mixture toxicity data.

**From:** Stephen Klaine [mailto:SKLAINE@clemson.edu]  
**Sent:** Tuesday, August 11, 2015 4:21 PM  
**To:** Skipper, Sherry  
**Subject:** Re: gold mine spoil

By the way, we have been generating chronic metal mixture toxicity data with fathead minnows and *Ceriodaphnia dubia*. Our work includes binary mixtures of Cd, Zn, Cu, and Ni. If our data could be of use I will be happy to provide it or any other assistance.

Steve

Stephen J. Klaine, Ph.D.

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**From:** "Skipper, Sherry" <Skipper.Sherry@epa.gov>

**Date:** Tuesday, August 11, 2015 at 5:41 PM

**To:** Steve Klaine <sklaine@clemson.edu>

**Subject:** RE: gold mine spoil

Not directly this week. I was up there last week on a regularly scheduled sampling trip when the blowout happened. We were sampling in and along the Animas River upstream of Cement Creek, the drainage that the Gold King is in. Barry F. and Dan were on the trip. Barry and I went back a day early and carried the first water samples to the EPA lab. Since then, Barry has gone back to Dallas, I am in the office in Denver and Dan is still in the Silverton/Durango area with the emergency responders. Heard today that he will be there until the 24<sup>th</sup>.

Here's some good websites with history and on-going activities:

<http://www2.epa.gov/region8/gold-king-mine-release-emergency-response>

[http://www.epaosc.org/site/site\\_profile.aspx?site\\_id=11082](http://www.epaosc.org/site/site_profile.aspx?site_id=11082)

And a fairly balanced article about the area:

<https://www.hcn.org/articles/when-our-river-turned-orange-animas-river-spill>

**From:** Stephen Klaine [<mailto:SKLAINE@clemson.edu>]  
**Sent:** Tuesday, August 11, 2015 3:36 PM  
**To:** Skipper, Sherry  
**Subject:** gold mine spoil

Sherry,

You Working on the gold mine spill?

Steve

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